WR-35

API #: **47-041-05604**

JK

State of West Virginia
Division of Environmental Protection
Section of Oil & Gas

Well Operator's Report of Well Work

Farm Name: **Bennett, Phoebe & John** Well Name: **H Bennett #19** B- **312**

LOCATION: Elevation: **1177** Quadrangle: **Weston**
District: **Hackers Creek** County: **Lewis**
Latitude: **2565** Feet South of D,M,S: **39, 02, 30** Exact **39-02-03.55**
Longitude: **10870** Feet West of D,M,S: **80, 25, 00** Lat/Lon: **80-27-17.39**

Company: **Bowie, Inc.**
RR 1, Box 559
Clarksburg, WV 26301

Agent: **Casey C. Bowie**
Inspector: **Tim Bennett**
Permit Issued: **2/3/2010**
Spud Date: **3/25/2010**
TD Date: **4/1/2010**
Frac Date: **4/6/2010**
Rig Type: ◉ Rotary ○ Cable
Verbal Plugging:
Total Depth: **4618**
Fresh Water Depth: **12, 50, 311**
Salt Water Depth: **N/A**

Mining?: **No** Coal Depth: **138-144, 52-56**

Casing & Tubing	Used in Drilling	Left in Well	Cement in ft^3
13 3/8	**37'**	**37'**	**---**
9 5/8	**210'**	**210'**	**75 SKS**
7'	**1354'**	**1354'**	**225 SKS**
4 1/2'	**--**	**4590**	**135 SKS**

Producing Formations:

Benson	4544-4562
Benson	4444-4455
Bradford	3643-3877
Balltown	3300-3398

Rock Pressure (psi): **1080** After: **24** Hrs.

	Gas (MCF/d)	Oil (Bbl/d)
Open Flow at TD:	**SHOW**	**ODOR**
Final Open Flow:	**300**	**ODOR**

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By: _____

Date:

API #: 47-041-05604 Bowie #: B- 312 H Bennett 19

Fracture Record:

Benson	4544-4562	12H 500 GAL HCL, 150 SKS SAND, 300 BBL X-LINK GEL, N2
Benson	4444-4455	12H 500 GAL HCL, 200 SKS SAND, 320 BBL X-LINK GEL, N2
Bradford	3643-3877	12H 750 GAL HCL, 150 SKS SAND, 310 BBL X-LINK GEL, N2
Balltown	3300-3398	12H 500 GAL HCL, 200 SKS SAND, 275 BBL X-LINK GEL, N2

FORMATION	COMMENT
SAND & SHALE 0-52 COAL & SHALE 52-56 SAND & SHALE 56-138 COAL & SHALE 138-144 SAND & SHALE 144-1100 SAND 1100-1270 L LIME 1270-1600 B LIME 1600-1710 INJUN 1710-1810 GANT 3 2040-2090 GORDON 2090-2360 FIFTH 2360-2470 BALLTOWN 2470-3400 BRADFORD 3400-3870 BENSON 3870-4618 DTD	DAMP @ 12', 1/4" HTO @50', 2040 GAS SHOWING, 2340 GAS SHOWING, 2460 GAS SHOWING, 3300 GAS SHOWING, 3850 GAS SHOWING, 4440 GAS SHOWING.

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 6/3/14
API #: 47-7700164 W

Farm name: Fleming, Anita Operator Well No.: 7535

LOCATION: Elevation: 2607 ft Quadrangle: Aurora

District: Union County: Preston
Latitude: 14,490 Feet South of 39 Deg. 22 Min. 30 Sec.
Longitude 11,075 Feet West of 79 Deg. 35 Min. 00 Sec.

Company: Columbia Gas Transmission, LLC

Address: 1700 MacCorkle Ave SE	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Charleston, WV 25325-1273	* no existing	casing altered		
Agent: Paul Amick				
Inspector: John Shockey				
Date Permit Issued: 5/15/14				
Date Well Work Commenced: 5/28/14				
Date Well Work Completed: 5/29/14				
Verbal Plugging: NA				
Date Permission granted on:				
Rotary ☐ Cable ☐ Rig ☐				
Total Vertical Depth (ft):				
Total Measured Depth (ft): 6582 (existing)				
Fresh Water Depth (ft.): none rpt'd by driller in 1971				
Salt Water Depth (ft.): none rpt'd by driller in 1971				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): none rpt'd by driller in 1971				
Void(s) encountered (N/Y) Depth(s) none rpt'd				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)
Producing formation Oriskany (natural gas storage) Pay zone depth (ft) 6408 - 6541
Gas: Initial open flow_____MCF/d Oil: Initial open flow_____Bbl/d
Final open flow_____MCF/d Final open flow _____Bbl/d
Time of open flow between initial and final tests_____Hours
Static rock Pressure_____psig (surface pressure) after _____Hours

Second producing formation_____ Pay zone depth (ft)_____
Gas: Initial open flow_____MCF/d Oil: Initial open flow_____Bbl/d
Final open flow_____MCF/d Final open flow _____Bbl/d
Time of open flow between initial and final tests_____Hours
Static rock Pressure_____psig (surface pressure) after _____Hours

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I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

6/2/14
Date

77-00164W

Were core samples taken? Yes_____ No X Were cuttings caught during drilling? Yes_____ No NA

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list High Resolution MicroVertilog (pipe inspection)

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Killed well. Pulled tubing. Logged and installed mechanical bridge plug. Installed new wellhead.

Pulled bridge plug. Acid stimulated.

Acid treatment: 2000 gal 15% HCl acid, 150 bbls fresh water, Nitrogen. Avg rate = 4 bpm, ATP = 1790 psig

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered: Top Depth / Bottom Depth

Surface:

NA - no new borehole drilled

JR

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Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 085 - 10024 County Ritchie District Grant
Quad Harrisville 7.5' Pad Name na Field/Pool Name na
Farm name Coastal Lumber Company Well Number Deem #1
Operator (as registered with the OOG) Energy Corporation of America
Address 501 56th St. City Charleston State WV Zip 25304

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4343017.5 Easting 491144.4
Landing Point of Curve Northing na Easting na
Bottom Hole Northing na Easting na

Elevation (ft) 1105 GL Type of Well ■New □ Existing Type of Report □Interim ■Final
Permit Type □ Deviated □ Horizontal □ Horizontal 6A ■ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate
Well Type □ Brine Disposal □ CBM ■ Gas □ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____
Type of Completion □ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL □ Oil ■ Other Not completed
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud □Fresh Water Intermediate hole ■ Air □ Mud □ Fresh Water □ Brine
Production hole ■ Air □ Mud □ Fresh Water □ Brine
Mud Type(s) and Additive(s)

Date permit issued 2/14/13 Date drilling commenced 3/22/13 Date drilling ceased 3/29/13
Date completion activities began well was not completed Date completion activities ceased na
Verbal plugging (Y/N) na Date permission granted na Granted by na

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 100 Open mine(s) (Y/N) depths n
Salt water depth(s) ft na Void(s) encountered (Y/N) depths
Coal depth(s) ft na Cavern(s) encountered (Y/N) depths n
Is coal being mined in area (Y/N) n

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Reviewed by:

API 47- 085 - 10024 Farm name Coastal Lumber Company Well number Deem #1

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	17 1/2"	13 3/8"	40	N	43.6#/ft	na	Driven
Surface	12 1/4"	9 5/8"	420	N	26#/ft	40'	Y, Circ 10 bbl stayed at surface
Coal							
Intermediate 1	8 7/8"	7"	1700	N	17#/ft	40'	Y, Circ 7 bbl, stayed at surface
Intermediate 2							
Intermediate 3							
Production	6 1/2"						
Tubing							
Packer type and depth set							

Comment Details Drilled well to a TD of 3800' w/ 6.5" Bit, Logged well, logs did not show zones to be productive, plan to plug back and kickoff horizontally were canceled. Hole loaded with 3% KCl

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft ^{3})	Cement Top (MD)	WOC (hrs)
Conductor	Driven						
Surface	Class A	190	15.6	1.20	228	Surface	8
Coal							
Intermediate 1	Class A	255	14.8	1.40	357	Surface	8
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 3800 Loggers TD (ft) 3805

Deepest formation penetrated Warren Plug back to (ft) na

Plug back procedure na

Kick off depth (ft) na

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature ■ sonic

Well cored ■ Yes □ No Conventional ▪ Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING Centralizers placed on Shoe and every 200' to surface on both the surface and intermediate. Production casing was not ran.

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

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API 47- 085 - 10024 Farm name Coastal Lumber Company Well number Deem #1

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
na	na	na	na	na	na

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
na	na	na	na	na	na	na	na	na

Please insert additional pages as applicable.

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API 47- 085 - 10024 Farm name Coastal Lumber Company Well number Deem #1

PRODUCING FORMATION(S)	DEPTHS	
na	na TVD	na MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface na psi Bottom Hole na psi DURATION OF TEST na hrs

OPEN FLOW	Gas	Oil	NGL	Water	GAS MEASURED BY
	na mcfpd	na bpd	na bpd	na bpd	☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Fill	0	32	0	32	Fill
Sandstone	32	500	32	500	Sandstone/Clay stringers with little water present
Siltstone	500	750	500	750	Siltstone/Shale
Sandstone	750	900	750	900	Sandstone
Silty Shale	900	1300	900	1300	Silstone/Shale Stringers
Sandstone	1300	1700	1300	1700	Sandstone/Oil Show
Siltstone	1700	1894	1700	1894	Silty/Shale
Big Lime	1894	2050	1894	2050	Limestone
Big Injun	2050	2130	2050	2130	Sandstone/Oil Show
Weir Sandstone	2130	2270	2130	2270	Sandstone
Berea Sandstone	2460	2480	2460	2480	Sandstone
Gantz Sandstone	2567	2592	2567	2592	Sandstone/Oil Show
Gordon	2718	2850	2718	2850	Sandstone
Warren	3529	3625	3529	3625	Siltstone/Slight Oil Show

Please insert additional pages as applicable.

Drilling Contractor R&R Well Services L.L.C.
Address 42 Lynch Ridge City Walton State WV Zip 25286

Logging Company Weatherford US LP
Address 584 Hackers Creek Rd. City Jane Lew State WV Zip 26378

Cementing Company Universal Well Services
Address RT. 5 Hall Road City Buckhannon State WV Zip 26201

Stimulating Company NA
Address City State Zip
Please insert additional pages as applicable.

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Completed by Lowell Warden Telephone 304-925-6100
Signature Title VP of Business Development Date 6/5/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

JK

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State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 085 - 10077 County Ritchie District Murphy
Quad Burnt House 7.5' Pad Name Wilson Field/Pool Name Burnt House
Farm name G. W. Conrad Well Number S-542-8
Operator (as registered with the OOG) Stalnaker Energy Corportation
Address 220 West Main St. City Glenville State WV Zip 26351

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,321,957 Easting 504,924
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1,059' GL Type of Well ■New □ Existing Type of Report □Interim ■Final

Permit Type □ Deviated □ Horizontal □ Horizontal 6A ■ Vertical Depth Type □ Deep ■ Shallow

Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework ■ Stimulate

Well Type □ Brine Disposal □ CBM ■ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____

Type of Completion □ Single ■ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud □Fresh Water Intermediate hole ■ Air □ Mud □ Fresh Water □ Brine
Production hole ■ Air □ Mud □ Fresh Water □ Brine

Mud Type(s) and Additive(s)
N/A

Date permit issued 11/13/2013 Date drilling commenced 3/24/14 Date drilling ceased 4/13/14
Date completion activities began 4/30/2014 Date completion activities ceased 4/30/2014
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 55' Open mine(s) (Y/N) depths No
Salt water depth(s) ft None Void(s) encountered (Y/N) depths No
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

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Reviewed by: _____

API 47- 085 - 10077 Farm name G. W. Conrad Well number S-542-8

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	20"	16"	20'	New	55#	None	Sand In
Surface	15"	11 3/4"	294'	New	42#	None	Yes
Coal							
Intermediate 1	11"	8 5/8"	2567'	New	32#	2567'	Yes
Intermediate 2							
Intermediate 3							
Production	7 7/8"	4 1/2"	4719'	New	11.6#	4677'	No
Tubing							
Packer type and depth set							

Comment Details

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor	Sand In						
Surface	Class A	130	14.8	1.4	182	Surface	12
Coal							
Intermediate 1	Light Class A/Class A	325/150	12.7/14.8	1.8/1.4	795	Surface	12
Intermediate 2							
Intermediate 3							
Production	50/50 POZ	500	14.6	1.31	655	1844'	Minimum 72
Tubing							

Drillers TD (ft) 6361' Loggers TD (ft) 6363

Deepest formation penetrated Alexander Plug back to (ft) 4719

Plug back procedure 6% gel with 1/4# cello flake was used to fill all open hole.

Kick off depth (ft) N/A

Check all wireline logs run ■ caliper ■ density □ deviated/directional ■ induction
■ neutron ■ resistivity ■ gamma ray ■ temperature ■ sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected □ Yes ■ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING None on the surface. One near the bottom of the 8 5/8".
Ten total on the 4 1/2" string starting with one on the first joint then one every 200 feet up.

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

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API 47- 085 - 10077 Farm name G. W. Conrad Well number S-542-8

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	4/25/2014	3612	4554	25	Riley, Balltown
2	4/30/2014	3302	3362	30	Speechly, Warren
3	4/30/2014	2591	2920	21	Warren, Elizabeth

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	4/30/201	54	2600	1260	1800	0	0	1,000,000 SCF
2	4/30/201	60	2300	2680	1400	0	0	1,000,000 SCF
3	4/30/201	62	2250	2400	1200	0	0	1,000,000 SCF

Please insert additional pages as applicable.

API 47- 085 - 10077 Farm name G. W. Conrad Well number S-542-8

PRODUCING FORMATION(S)	DEPTHS			
Warren	3261'-3332'	TVD	3261'-3332'	MD
Speechly	3344'-3623'		3344'-3623'	
Balltown	3676'-4459'		3676'-4459'	
Riley	4545'-4719'		4545'-4719'	

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ■ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface 900 psi Bottom Hole 900 psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 1,800 mcfpd Oil Show bpd NGL 0 bpd Water 0 bpd GAS MEASURED BY ■ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
	0		0		Extra Page Attached

Please insert additional pages as applicable.

Drilling Contractor Waco Oil and Gas
Address 1595 US HWY 33 E City Glenville State WV Zip 26351

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Well Services
Address Route 5 Haul Road City Buckhannon State WV Zip 26201

Stimulating Company Nabors Completion and Production Services
Address Route 119 N City Black Lick State PA Zip 15716
Please insert additional pages as applicable.

Completed by Jason M. Miller Telephone 304-462-5701
Signature Jason M. Miller Title Engineer Date 6/3/2014

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WELL LOG

Sand & Shale	0	50	
Sand	50	114	
Red Rock & Shale	114	172	
Sand & Shale	172	426	
Red Rock & Shale & Sand	426	1153	Damp @ 50'
Sand & Shale	1153	1276	
Shale	1276	1308	
Sand & Shale	1308	1584	
Sand	1584	1653	
Sand & Shale	1653	1848	
Sand	1848	1862	
Sand & Shale	1862	1908	
Little Lime	1908	1929	
Sand & Shale	1929	1944	
Big Lime	1944	1987	
Big Injun	1987	2050	
Shale	2050	2256	
Weir	2256	2346	
Shale	2346	2368	
Berea	2368	2384	
Shale	2384	2586	
Elizabeth	2586	2924	
Shale & Siltstone	2924	3242	
Warren	3242	3335	
Shale	3335	3342	
Speechley	3342	3613	
Shale	3613	3666	
Balltown	3666	4070	
Shale	4070	4334	
Riley	4334	4685	
Shale	4685	4744	
Benson	4744	4750	
Shale	4750	4869	
Alexander	4869	5032	
Shale	5032	5400	
Elk	5400	5418	
Shale	5418	6361	
TD	6361		

JK

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Rev (8-10)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE:
API #: ~~47-033-03716 P~~
97-033716

Farm name: SISK, HILDRED Operator Well No.: 1-WV0400

LOCATION: Elevation: 1816 Quadrangle: ROCK CAVE

District: BANKS County: UPSHUR
Latitude: 9,180' Feet South of 38 Deg. 52 Min. 30 Sec.
Longitude 5,080' Feet West of 80 Deg. 17 Min. 30 Sec.

Company:

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
MOUNTAIN V OIL & GAS P.O.BOX 470 BRIDGEPORT WV26330	13 3/8	42	LEFT	SAND IN
Agent: MIKE SHAVER	9 5/8	210	LEFT	80 SK
Inspector: BILL HATFIELD	7"	1447	LEFT	260 SK
Date Permit Issued: 03-05-2010				
Date Well Work Commenced: 02-15-11				
Date Well Work Completed: 04-14-11				
Verbal Plugging: YES				
Date Permission granted on: 03-13-2011				
Rotary X Cable Rig				
Total Vertical Depth (ft): 7247				
Total Measured Depth (ft): 7247				
Fresh Water Depth (ft.): 150 FT - 415 FT				
Salt Water Depth (ft.): 1748 FT				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 410 - 415				
Void(s) encountered (N/Y) Depth(s)				

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OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)
Producing formation PTA Pay zone depth (ft)_____
Gas: Initial open flow_____MCF/d Oil: Initial open flow_____Bbl/d
Final open flow_____MCF/d Final open flow _____Bbl/d
Time of open flow between initial and final tests_____Hours
Static rock Pressure_____psig (surface pressure) after _____Hours

Second producing formation_____ Pay zone depth (ft)_____
Gas: Initial open flow_____MCF/d Oil: Initial open flow_____Bbl/d
Final open flow_____MCF/d Final open flow _____Bbl/d
Time of open flow between initial and final tests_____Hours
Static rock Pressure_____psig (surface pressure) after _____Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

4/14/11
Date

97.03716

Were core samples taken? Yes_____ No X____ Were cuttings caught during drilling? Yes_____ No X____

Were X____ Electrical, ____Mechanical, _____ or Geophysical logs recorded on this well?
Y/N Y/N Y/N

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Formations Encountered: Top Depth / Bottom Depth
Surface:

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DATE: 5/7/14
API # : 47-105-01368

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name:_____Kennith and Elika Mcclung_ Operator Well No.:_____HR 495_____

LOCATION: Elevation: _____1029'_____ Quadrangle: _____Burning Springs WV 7.5'____

District: _____Spring Creek_____ County: _____Wirt_____
Latitude: 2296'__Feet South of_38___Deg. __55_____Min._00____Sec.
Longitude_10800'__Feet West of__81___Deg.__20__Min._00_____Sec.

Company: __Hard Rock Exploration_____

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 1244 Martins Branch Road				
Charleston WV, 25312				
Agent: Marc Scholl	13 3/8"	39'	39'	N/A
Inspector: Joe Taylor	9 5/8"	966'	966'	456ft3 CTS
Date Permit Issued: 8/20/13	7"	2319'	2319'	539ft3 CTS
Date Well Work Commenced: 2/28/14	4.5"	7950'	7950'	84 ft3
Date Well Work Completed: 4/10/14				
Verbal Plugging:	Gamma Log from (3860' MD , 4557'TVD) KOP- 3900'			
Date Permission granted on:	Single shot surveys from (3867' – Surface)			
Rotary x Cable Rig				
Total Depth (feet): 8203'TMD, 4557'TVD				
Fresh Water Depth (ft.): 701'				
Salt Water Depth (ft.): 1928'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.):_____N/A_____				

RECEIVED
Office of Oil & Gas
MAY 21 2014
WV Department of
Environmental Protection

OPEN FLOW DATA

Producing formation___Lower Huron_Shale__Pay zone depth (ft) 4277'MD- 8203'MD
4252'TVD – 4557' TVD
Gas: Initial open flow_ Trace MCF/d Oil: Initial open flow_____Bbl/d
Final open flow__>1.5__MMCF/d Final open flow _____Bbl/d
Time of open flow between initial and final tests____72_____Hours
Static rock Pressure__1350_____psig (surface pressure) after _72____Hours

Second producing formation_____ Pay zone depth (ft)_____
Gas: Initial open flow_____MCF/d Oil: Initial open flow_____Bbl/d
Final open flow_____MCF/d Final open flow _____Bbl/d
Time of open flow between initial and final tests_____Hours
Static rock Pressure_____psig (surface pressure) after _____Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: _____
By: President
Date: 5/21/2014

105-01368

Formation:	Top:	Bottom:
Soil/Sand/Shale	0	1802
Salt Sand	1802	2168
Big Injun	2168	2232
shale	2232	4557
Lower Huron Section	4380	4557

All depths shown As TVD

03/11/14. Total pipe ran 7950' KB – 177 jts R-3 N-80 with Peak Completions 14 stage openhole packer system.

03/12/14 Universal well services Pressure test to 5000 psi. Bleed off and pump 5 bbl water down casing and drop ball for pump out shoe. Follow ball with N2 at 7000 scf/min. Land ball and pressure casing up to 3000 psi with approx. 150k scf N2 (packers shut off flow at 2100 psi). Hold 3000 psi for 20 min. Bleed pressure back down to 850 psi. RU to dump squeeze cmt on to top packer. Pump total of 15 bbls Type 1 2% CaCl cmt mixed at 15ppg .

NOTE: THERE ARE NO PERFORATED INTERVALS IN THIS STYLE OF COMPLETION. THE PACKERS WILL SERVE AS STAGE ISOLATION AND THE BALL ACTIVATED MECHANICAL SLEEVES SERVE AS THE MEANS OF COMMUNICATION FROM WELLBORE TO FORMATION. ALL DEPTHS ARE INDICATED BELOW.

Stage	Sleeve	Sleeve Size	Ball Size	Packer
1	7950.15	P/O Shoe	P/O Shoe	7770.25
2	7637.00	1.156	1.250	7497.15
3	7361.30	1.281	1.375	7221.45
4	7085.50	1.406	1.500	6990.00
5	6854.00	1.531	1.625	5714.10
6	6578.30	1.656	1.750	6438.45
7	6302.50	1.781	2.000	6162.85
8	6026.80	2.031	2.250	5887.30
9	5751.40	2.281	2.500	5611.80
10	5475.95	2.531	2.750	5336.25
11	5200.20	2.781	3.000	5104.75
12	4968.85	3.031	3.250	4829.20
13	4693.05	3.281	3.500	4553.25
14	4417.25	3.531	3.750	4277.65
Anchor				2504.75

04/09/14 – 4/10/14 MIRU Universal well services. Pressure test lines at 7:00pm. Start pumping on **Stg 1** at 46k scf/min. Pressure up to 4738 psi and open shoe. Continue pumping and increase rate as pressure allows. Couldn't get much more than 52k scf/min rate. Pump total of 1MM scf N2 – drop 1.25" ball for **Stg 2** and pump ball to sleeve with N2 at approx. 20k scf/min, and land ball with 160k scf N2. Didn't see clear operation of sleeve. Increase rate as pressure allows; couldn't reach max rate. Pump total of 1MM scf N2. Drop 1.375" ball for **Stg 3.** Shut down and let ball drop. Wait 10 mins pressure fell to 2430 psi. Start pumping ball to sleeve, and open sleeve at 4755 psi. Continue to increase rate as pressure allows. Pump total of 1MM scf N2. **Repeat Process for Stgs 4 – 14.**

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	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
Max P	5929	5905	5834	5859	5846	5920	5887
Avg P	5495	5576	5529	5582	5760	5795	5749
Max R	52.9	53.0	52.4	61.7	62.9	68.6	71.5
Avg R	46.3	45.8	49.6	53.4	61.5	64.4	67.1
Shut In	N/A	N/A	2903-5min	N/A	N/A	N/A	2951-5min

	Stage 8	Stage 9	Stage 10	Stage 11	Stage 12	Stage 13	Stage 14
Max P	5975	5964	5838	5909	5929	5822	5159
Avg P	5890	5840	5627	5518	5402	5793	4269
Max R	53.2	59.5	71.9	50.0	32.8	40.2	105.5
Avg R	49.3	46.1	67.8	40.0	29.6	37.2	102.1
Shut In	N/A	N/A	N/A	N/A	N/A	N/A	1811-5min

105-01368

API Permit #:

Customer: HARDROCK

Lease and Well Name: HR 495

A.F.E #:

UNIVERSAL WELL SERVICES, INC.

Job Type: 9 5/8 SURFACE JOB

Cement Operator: ERIC B FIELDS

Date Cemented: 3/1/2014

Drilling Contractor: GASCO

Cement Slurry Information

No. of Sacks	Cement Blend Composition	Yield (ft^3/sk)	Mix Water (gal/sk)	Density (lb/gal)	(bbl) Mix Water	(ft^3) of Slurry	(bbl) of Slurry
380	TYPE 1 3% CACL .25 FLAKE	1.18	5.20	15.6	47.0	448.4	79.9
				Totals	47.0	448.4	79.9

Wellbore Information

	New/Used	Diameter (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Collapse/Burst Pressures (psi)
Casing	NEW	9.625	26.0	0	972	
Previous Casing	NEW	13.375	37.0	0	40	
Tubing or Drill pipe						
Open Hole		12.375		40	1,017	
Open Hole						

Requested TOC (ft)	SURFACE
TVD (ft)	1,017
Displacement Depth (ft)	930
Displacement (bbl)	75.2

Pumping Returns

Spacer or Gel Sweep Return Seen at Surface	yes
Cement Returns Seen at Surface	yes
Amount of Cement Returns (bbl)	10

Cement Slurry Temperature Record (°F)

Cement	Reading 1	Reading 2	Reading 3	Average
Blend 1				
Blend 2				
Blend 3				

Fluid Information

Mix Water Temp (°F)	36
Displacement Fluid Type	WATER
Displacement Fluid Temp (°F)	36
Displacement Fluid Density (lb/gal)	8.3

Time	Rate (bpm)	Volume (bbl)	Pressure (psi)	Event or Stage Description
5:30				ARRIVE ON LOCATION
5:45				SPOT TRUCKS/SAFETY MEETING
5:50				RIG UP/WAIT ON RIG TO RUN PIPE
8:30				PRE JOB MEETING
8:35	3.5	70	65	H20 AHEAD
8:55	4	10	167	GEL SPACER
8:57	3.5	5	161	H20 SPACER
8:59	3.5	81	155	PUMP CEMENT
9:30				S/D D/P
9:31	4	70	55	DISPLACE H20
10:01	4/2		378	S/D
10:25				WASH TRUCK/RIG OUT
11:00				LEAVE LOCATION

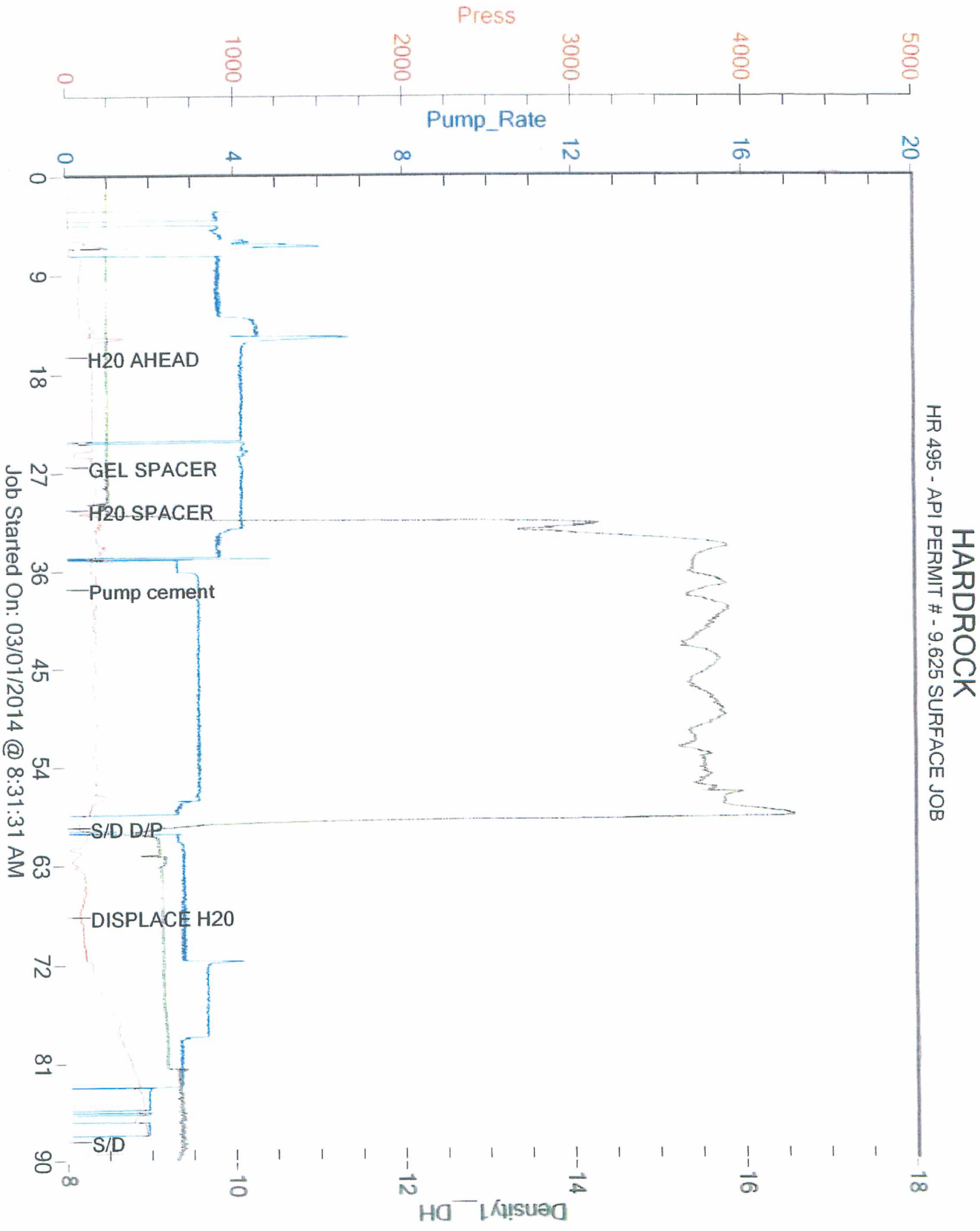
Comments:

Thank you for your business.

UWS Cement Operator Signature: Eric B. Fields

Customer Representative Signature:

105-01368


HARDROCK
HR 495 - API PERMIT # - 9.625 SURFACE JOB
Job Started On: 03/01/2014 @ 8:31:31 AM
Press
Pump_Rate
Density1_DH
H20 AHEAD
GEL SPACER
H20 SPACER
Pump cement
S/D D/P
DISPLACE H20
S/D

105-01368

API Permit #:

Customer: HARD ROCK

Lease and Well Name: HR 495

A.F.E #:

UNIVERSAL WELL SERVICES, INC.

Job Type: 7" INTERMEDAITE

Cement Operator: MICHAEL BROWNING

Date Cemented: 3/2/2014

Drilling Contractor: GASCO

Cement Slurry Information

No. of Sacks	Cement Blend Composition	Yield (ft^3/sk)	Mix Water (gal/sk)	Density (lb/gal)	(bbl) Mix Water	(ft^3) of Slurry	(bbl) of Slurry
390	TYPE 1 2% C.C. 1/4 FLAKE	1.18	5.20	15.6	48.3	460.2	82.0
				Totals	48.3	460.2	82.0

Wellbore Information

	New/Used	Diameter (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Collapse/Burst Pressures (psi)
Casing	New	7.000		0	2,319	1450/2310
Previous Casing	NEW	9.625		0	966	860/1280
Tubing or Drill pipe						
Open Hole		8.875		966	2,370	
Open Hole						

Requested TOC (ft)	SURFACE
TVD (ft)	2,370
Displacement Depth (ft)	2,319
Displacement (bbl)	95.0

Pumping Returns	
Spacer or Gel Sweep Return Seen at Surface	
Cement Returns Seen at Surface	
Amount of Cement Returns (bbl)	

Cement Slurry Temperature Record (°F)				
Cement	Reading 1	Reading 2	Reading 3	Average
Blend 1				
Blend 2				
Blend 3				

Fluid Information	
Mix Water Temp (°F)	31
Displacement Fluid Type	Water
Displacement Fluid Temp (°F)	31
Displacement Fluid Density (lb/gal)	8.3

Time	Rate (bpm)	Volume (bbl)	Pressure (psi)	Event or Stage Description
14:00				ARRIVE ON LOC
14:02				WAITING ON RIG
18:30				RIG READY
18:35				SPOT TRUCKS/SAFTY MEETING
19:10				RIG UP
19:15				PRE SAFTY MEETING
19:20			1500	PRESSURE TEST
19:24	4	85	114	START WATER
19:44	4	10	150	START GEL & FLAKE
19:48	4	5	198	START SPACER
19:50	4	70	194	START CEMENT
20:05	4	28	128	START CEMENT
20:12				SD/DP/DISPLACEMENT
20:38	4/2	95	1342	LAND PLUG
21:30				WASH UP
22:00				RACK UP
22:10				LEAVING LOCATION

Comments:
TOP PSI= 1500 / LIFT PSI= 1147 / DIFF PSI= 875

Thank you for your business.

UWS Cement Operator Signature: MICHAEL BROWNING

Customer Representative Signature:

105-01368

API Permit #:
Customer: HARD ROCK
Lease and Well Name: HR 495
A.F.E #:
Job Type: 7" INTERMEDAITE
Cement Operator: MICHAEL BROWNING
Date Cemented: 3/2/2014
Drilling Contractor: GASCO

UNIVERSAL WELL SERVICES, INC.

PUMP SCHEDULE

Universal Well Services Proposed Pump Schedule

Pick up Pump		
Pressure Test	1,500	psi
Release Pressure		
GEL	10.0	bbl
WATER	90.0	bbl
		bbl
CEMENT 15.6	82.0	bbl
SD/DP		bbl
		bbl
		bbl
		bbl
		bbl
		bbl
		bbl
Pump Displacement	95.0	bbl
Land plug at	2.0	bbl/min
Bump plug	200	psi over
Release Pressure/Check Floats		

Company Representative Proposed Pump Schedule

Pick up Pump		
Pressure Test	1,500	psi
Release Pressure		
WATER	85.0	bbl
GEL	10.0	bbl
WATER	5.0	bbl
CEMENT 14.2	70.0	bbl
CEMENT 15.6	28.0	bbl
SD/DP		bbl
		bbl
		bbl
		bbl
		bbl
		bbl
		bbl
Pump Displacement	95.0	bbl
Land plug at	2.0	bbl/min
Bump plug	200	psi over
Release Pressure/Check Floats		

Parameter	Water Testing Results						
Sample Location							
pH	7	7	7	7			[5-9 Recommended]
Temperature (°F)	31	31	31	31			[<80 °F Recommended]
Specific Gravity							[<1.005 Recommended]
Tannin and Lignin (mg/l)							[<25 mg/l Recommended]
Hardness (mg/l)							[<500 mg/l Recommended]
Iron (mg/l)							[<20 mg/l Recommended]
Sulfates (mg/l)							[<200 mg/l Recommended]

Universal Well Services Water Requirements

This job will require 288 bbls to properly complete the job

There is a minimum of 540 bbls of useable water that meets UWS testing recommendations for mixing the cement slurry(s) and (or) any spacers or flushes that were designed to be used for the job

There is a minimum of 540 bbls of fluid that can be used for the displacement of the top plug to the casing shoe

UWS Cement Operator Signature: Michael Browning Date: 3-2-14

Customer Representative Signature: _____ Date: _____

105-01368

API Permit #:

Customer: HARDROCK

Lease and Well Name: HR 495

A.F.E #:

UNIVERSAL WELL SERVICES, INC.

Job Type: N2 PACKER SET

Cement Operator: ERIC B FIELDS

Date Cemented: 3/11/2014

Drilling Contractor: GASCO

Cement Slurry Information

No. of Sacks	Cement Blend Composition	Yield (ft^3/sk)	Mix Water (gal/sk)	Density (lb/gal)	(bbl) Mix Water	(ft^3) of Slurry	(bbl) of Slurry
				Totals			

Wellbore Information

	New/Used	Diameter (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Collapse/Burst Pressures (psi)
Casing	NEW	4.500	11.6	0	7,998	
Previous Casing	NEW	7.000	20.0	0	2,327	
Tubing or Drill pipe						
Open Hole		6.250		2,327	8,203	
Open Hole						

Requested TOC (ft)	
TVD (ft)	4,550
Displacement Depth (ft)	7,998
Displacement (bbl)	123.0

Pumping Returns

Spacer or Gel Sweep Return Seen at Surface	
Cement Returns Seen at Surface	
Amount of Cement Returns (bbl)	

Cement Slurry Temperature Record (°F)

Cement	Reading 1	Reading 2	Reading 3	Average
Blend 1				
Blend 2				
Blend 3				

Fluid Information

Mix Water Temp (°F)	40
Displacement Fluid Type	WATER
Displacement Fluid Temp (°F)	40
Displacement Fluid Density (lb/gal)	8.3

Time	Rate (bpm)	Volume (bbl)	Pressure (psi)	Event or Stage Description
15:30				ARRIVE ON LOCATION/
15:45				SPOT TRUCKS/SAFETY MEETING
16:00				RIG UP/WAIT ON RIG
9:40				PRE JOB MEETING
9:48			5029	PRESSURE TEST TO 5000 PSI
9:53	3	5	44	H20 AHEAD
9:55				S/D D/B
9:56	5,844		454	PUMP N2
10:22	5,844-4,224		2995/2950	PSI UP TO 3000 FOR 30 MIN
10:45				BLEED OFF TO PSI TO 1000 PSI
10:55				SHUT IN/RIG OUT

Comments:

Thank you for your business.

UWS Cement Operator Signature: Eric B. Fields

Customer Representative Signature:

105-01368

API Permit #:

Customer: HARDROCK

Lease and Well Name: HR 495

A.F.E #:

UNIVERSAL WELL SERVICES, INC.

Job Type: BACKSIDE DUMP

Cement Operator: ERIC B FIELDS

Date Cemented: 3/11/2014

Drilling Contractor: GASCO

Cement Slurry Information

No. of Sacks	Cement Blend Composition	Yield (ft^3/sk)	Mix Water (gal/sk)	Density (lb/gal)	(bbl) Mix Water	(ft^3) of Slurry	(bbl) of Slurry
100	TYPE 1 2% CACL	1.18	5.20	15.6	12.4	118.0	21.0
				Totals	12.4	118.0	21.0

Wellbore Information

	New/Used	Diameter (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Collapse/Burst Pressures (psi)
Casing	NEW	4.500	11.6	0	7,998	
Previous Casing	NEW	7.000	20.0	0	2,327	
Tubing or Drill pipe						
Open Hole		6.250		2,327	8,203	
Open Hole						

Requested TOC (ft)	
TVD (ft)	4,550
Displacement Depth (ft)	7,998
Displacement (bbl)	123.0

Pumping Returns	
Spacer or Gel Sweep Return Seen at Surface	
Cement Returns Seen at Surface	
Amount of Cement Returns (bbl)	

Cement Slurry Temperature Record (°F)				
Cement	Reading 1	Reading 2	Reading 3	Average
Blend 1				
Blend 2				
Blend 3				

Fluid Information	
Mix Water Temp (°F)	40
Displacement Fluid Type	WATER
Displacement Fluid Temp (°F)	40
Displacement Fluid Density (lb/gal)	8.3

Time	Rate (bpm)	Volume (bbl)	Pressure (psi)	Event or Stage Description
15:30				ARRIVE ON LOCATION
15:45				SPOT TRUCKS/SAFETY MEETING
16:00				RIG UP/WAIT ON RIG
9:40				PRE JOB MEETING
11:05	3	15	60	BATCH UP AN PUMP CEMENT ON BACKSIDE
11:10	3	2	44	PUMP H20 BEHIND
11:15				S/D WASH TRUCK
11:35				RIG OUT
13:00				LEAVE LOCATION

Comments:

Thank you for your business.

UWS Cement Operator Signature: Eric B. Fields

Customer Representative Signature: